

Claims:

We claim:

1. A method of servicing a pen in an inkjet printing device, said pen comprising a plurality of nozzles, said method comprising:

receiving a print job;

determining a level of print quality required for said print job;

detecting the operating characteristics of a plurality of nozzles to be used to print said print job; and

in the event that said operating characteristics of said plurality of nozzles are sufficient to meet said level of print quality, printing said print job.

2. The method of claim 1, wherein said level of print quality is determined from a resolution of said print job.

3. The method of claim 1, wherein said level of print quality is determined from a printmode of said print job.

4. The method of claim 1, wherein said level of print quality is determined from a setting of said inkjet printing device.

5. The method of claim 1, wherein said level of print quality is determined from an amount of media area required for said print job.

6. The method of claim 1, wherein detecting the operating characteristics of a plurality of nozzles further comprises performing a drop detection test on said plurality of nozzles.

7. The method of claim 1, further comprising scheduling a maintenance procedure in the event that an individual one of said nozzles is not fully functional.

8. The method of claim 7, wherein said maintenance procedure is scheduled to be performed during a time when said inkjet printing device is idle.

9. The method of claim 7, wherein said maintenance procedure includes performing a wiping procedure on said pen.

10. The method of claim 1, further comprising after printing said print job, performing a wiping procedure on said pen in the event that a predetermined number
5 of ink drops per nozzle has been exceeded.

11. The method of claim 1, further comprising after printing said print job, performing a wiping procedure on said pen in the event that said inkjet printing device remains idle for a period of time.

12. The method of claim 1, further comprising performing a recovery procedure in the event that said operating characteristics of said plurality of nozzles are not sufficient to meet said level of print quality.

13. The method of claim 12, wherein said recovery procedure comprises a sequence of a plurality of different servicing procedures, and further wherein at least one of said plurality of different servicing procedures is repeatable, based on its recovery effectiveness.

14. An inkjet printing device for printing on a medium comprising:
a processor for determining a level of print quality required for a received print job;

an ink drop detector for detecting the operating characteristics of a plurality of
20 nozzles to be used to print said print job;

said processor further being capable of determining that said operating characteristics of said plurality of nozzles are sufficient to meet said level of print quality, and in response to said determination, causing said inkjet printing device to print said print job.

15. The inkjet printing device of claim 14, wherein said level of print quality is determined from a resolution of said print job.

16. The inkjet printing device of claim 14, wherein said level of print quality is determined from a printmode of said print job.

17. The inkjet printing device of claim 14, wherein said level of print quality is determined from a setting of said inkjet printing device.

18. The inkjet printing device of claim 14, wherein said level of print quality is determined from an amount of media area required for said print job.

5 19. The inkjet printing device of claim 14, wherein said processor operates to schedule a maintenance procedure in the event that one or more of said nozzles is not fully functional.

20. The inkjet printing device of claim 19, wherein said processor operates to perform said maintenance procedure during a time when said inkjet printing device is idle.

21. The inkjet printing device of claim 19, further comprising a printhead cleaning device, wherein said maintenance procedure includes performing a wiping procedure on said pen utilizing said printhead cleaning device.

22. The inkjet printing device of claim 14, further comprising a printhead cleaning device, wherein after printing said print job, said processor operates to perform a wiping procedure on said pen utilizing said printhead cleaning device in the event that a predetermined number of ink drops per nozzle has been exceeded.

20 *Sub* 23. The inkjet printing device of claim 14, further comprising a printhead cleaning device, wherein after said step of plotting, said processor operates to perform a wiping procedure on said pen utilizing said printhead cleaning device in the event that said inkjet printing device remains idle for a period of time.

24. The inkjet printing device of claim 14, wherein said processor operates to perform a recovery procedure in the event that said operating characteristics of said plurality of nozzles are not sufficient to meet said level of print quality.

25 25. The inkjet printing device of claim 24, wherein said recovery procedure comprises a sequence of a plurality of different servicing procedures, and further wherein at least one of said plurality of different servicing procedures is repeatable, based on its recovery effectiveness.

Add as